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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/760,946	01/20/2004	Dai Huang	P2019-1/N1062	1274

7590 06/09/2006

UCAR Carbon Company Inc.
12900 Snow Road
Parma, OH 44130

EXAMINER

NGUYEN, THUKHANH T

ART UNIT	PAPER NUMBER
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1722

DATE MAILED: 06/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/760,946	Applicant(s) HUANG ET AL.	
	Examiner Thu Khanh T. Nguyen	Art Unit 1722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22 and 24-42 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 22 and 24-42 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/22/04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed April 22, 2004 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 22, 24-42 are rejected under 35 U.S.C. 102(b) as being anticipated by Yoo et al (6,309,591) in view of

Yoo et al disclose an apparatus for consolidating ceramic, metallic, or composite material, comprising a vessel or a compaction chamber (26), upper and lower plungers (58, 40) for applying a shear force of about 5-50MPa and an axial pressure of about 1-2,000 MPa (col. 7, lines 16-18), a power source (PS) for applying a current to the punches (Fig. 1) and the material (col. 10, lines 7-10) and resulting in high heating rate (col. 3, lines 25-32), an infrared detector and a thermocouple are provided for detecting the temperature of the compaction chamber (col.

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8, lines 45-56), and a control system (CP) for detecting and regulating the movement of the cylinder (30) that drives the punches (col. 6, lines 18-22) in corresponding with the current passing through the material inside the mold cavity (col. 4, lines 30-49).

In regard to claims 24-25 and 31-32, wherein means for applying pressure comprises a first and second plungers (58, 40).

In regard to claims 26 and 33, wherein the powder source (PS) applies a current to the material through the plungers (Fig. 1, PS, 58, 40).

In regard to claims 27 and 42, Yoo discloses that the compaction chamber (26) is doubled-walled and a cooling fluid is introduced in the space between the walls to insulate the compaction chamber and the surrounding area (col. 8, lines 9-20).

In regard to claim 30, the apparatus further comprises a cavity, or a holding area (92) for receiving the material.

In regard to claims 34-35, Yoo discloses a control panel (190) connected to a control circuit and a computer for controlling the pulsing rate, pulsing time period, current, voltage, pressing time, so that the material is heated and pressed to a predetermine temperature (col. 9, lines 13-30) and pressure (col. 6, lines 18-22).

In regard to claims 36-37, and 39-41, the apparatus further comprises infrared detector or thermocouples (col. 8, lines 45-56) for detecting and controlling the temperature of the material, and a mechanism, or device connected to the cylinder for actuation, variation, and detecting the compaction pressure and for controlling by the operator through the control panel (col. 6, lines 18-22), wherein the first temperature and the first pressure are the initial pressure and

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temperature before the compaction process begins and the second temperature and the second pressure are the high predetermined temperature and pressure, at which the material is sintered.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thu Khanh T. Nguyen whose telephone number is 571-272-1136. The examiner can normally be reached on Monday- Friday, 6:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gupta Yogendra can be reached on 571-272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TN


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